SAMSON®

auro D15 D12

OWNERS MANUAL

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V1.1

Important Safety Information

Consignes de sécurité importantes

AVIS
RISQUE DE CHOC ÉLECTRONIQUE -
NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) AS THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ATTENTION: AFFIN DE PRÉVENIR LE RIQUE DE CHOCS ÉLECTRIQUES NE PAS RETIRER LES VIS. TOUTE RÉPARATION DEVRAIT ÊTRE CONFIÉE À UN PERSONNEL QUALIFIÉ.

This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

Le symbole de l'éclair prévient l'utilisateur de la présence de tensions "dangereuses" et non isolées dans l'appareil, d'une amplitude suffisante pour présenter un risque d'électrocution.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

Le symbole du point d'exclamation prévient l'utilisateur de la présence d'instructions importantes sur le fonctionnement et la maintenance de ce produit dans le mode d'emploi fourni.

If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private household in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For Countries not mentioned above, please contact your local authorities for a correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

Important Safety Information

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Warning: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases should not be placed on this apparatus.
16. WARNING: The Class I apparatus shall be connected to a mains socket outlet with a protective earthing connection.
17. The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

Table of Contents

Introduction. 2

Features 3

Auro Components 4

Choosing the Correct Cables 5

Impedance 5

Connecting Two Auro Cabinets 6

Power the Auro D12/D15 6

Microphone Positioning 6

Setting Up Your Auro System 7

Positioning the Auro D12/D15 8

Wiring Guide 9

Specifications 10

Dimensions 11

ENGLISH

Introduction

Thank you for purchasing the Samson Auro professional, passive loudspeaker. Combining 400 watts of power handling, advanced crossover design, and the highest quality speaker and cabinet components, the Auro provides studio-quality sound for any live application. The Auro D12 and D15, respectively, feature 12" and 15" heavy-duty, long-excursion woofers, as well as 1.34" compression drivers on 1" throat wide dispersion horns. The speaker cabinets parallel Speakon® and ¼" phone jacks which that can be used as extension outputs to allows you to "daisy-chain" multiple Auro cabinets to create larger sound reinforcement systems.

Each cabinet's trapezoidal shape allows it to be configured for either front-of-house use, or for operation as a wedge-style monitor. In addition, the compact cabinets can easily be stacked using the built-in bumpers, or can be stand-mounted using the integral 1 3/8" pole-mount receptacles.

Each Auro PA system's durable enclosure is made of high-impact polypropylene with a scuff-resistant textured finish, and includes a heavy-grade steel grill, offering excellent protection against wear and tear for truly portable audio. The Auro passive monitors are ideal for live music, DJ, lecture, and installed sound applications, or anywhere serious power and superior sound quality are desired.

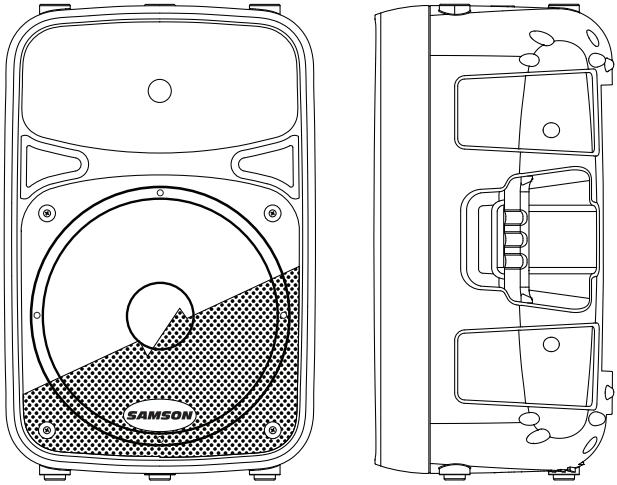
In these pages, you'll find a detailed itemization of the features of the Auro PA system, as well as a description of its front and rear panels, step-by-step instructions for its setup and use, and full specifications. You'll also find a warranty card enclosed—please don't forget to fill it out and mail it in so that you can receive online technical support, and so that we can send you updated information about this and other Samson products in the future. Also, be sure to check out our website (www.samsontech.com) for complete information about our full product line.

With proper care and adequate air circulation, your Auro cabinet will operate trouble-free for many years. We recommend you record your serial number in the space provided below for future reference.

Serial number: _____

Date of purchase: _____

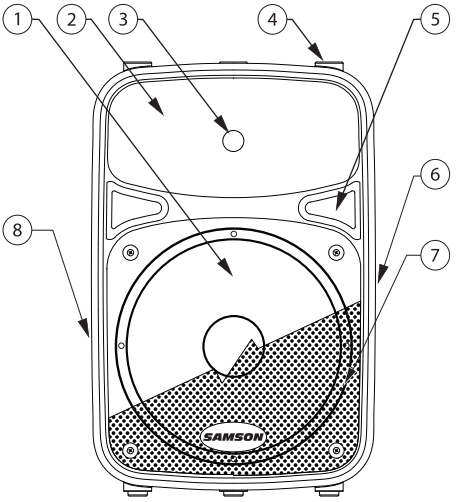
Should your unit ever require servicing, you must obtain a Return Authorization (RA) number before shipping your unit to Samson. Without this number, the unit will not be accepted. Please call Samson at 1-800-3SAMSON (1-800-372-6766) for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in the original carton and packing materials. If you purchased your Samson product outside the United States, please contact your local distributor for warranty and service information.



Here is a look at some the features of the Auro passive loudspeakers:

- Two-way passive loudspeakers for live sound applications
- 400 watt power handling; 8-ohm load impedance
- Ultra-wide, flat frequency response
- Custom-designed, heavy-duty, 12"/15" long throw low frequency drivers provide enhanced bass response
- 1.34" compression driver with 1" throat for smooth high-end reproduction
- Speakon® plus ¼" parallel input connectors that can also be used as extension outputs
- Internal 12 dB/octave crossover
- 30- and 45-degree monitor angles for near and far field coverage
- Standard 1 3/8-inch (35 mm) speaker stand receptacle
- Versatile, portable design with integrated side handles
- Tuned, ported bass reflex design for extended low end
- Rugged, lightweight polypropylene cabinet construction

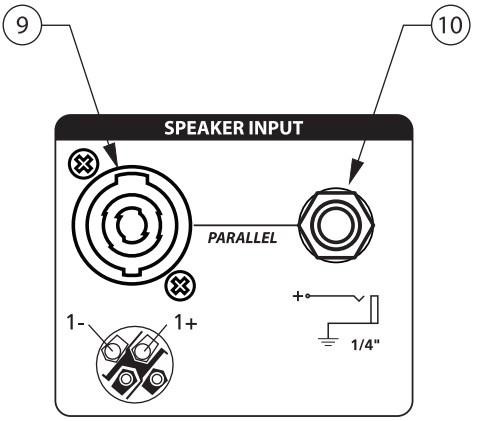
Auro Components



Auro Front Panel

1. **Woofer** – Custom designed , heavy-duty, 12"/15" low frequency driver provides deep bass.
2. **Wide Dispersion Horn** – 1" throat, 60 x 90 degree wide dispersion horn provides extensive coverage and linear off-axis response.
3. **Compression Driver** – 1.34" (34 mm), diaphragm with 1" opening.
4. **Stacking Bumper** – Gender mating bumpers for stacking Auro cabinet.
5. **Bass Port** – Precision tuned, low frequency port tubes extend the bass response.
6. **Handle** – One of two ultra over sized rubber grip carry handles.
7. **Steel Grill** – Durable steel grill provides protection for, and easy access to the LF driver.
8. **Enclosure** – Thick-wall, high-impact polypropylene enclosure.

Auro Rear Panel



9. **Speakon® Jack** – Speakon® jack for connecting a power amplifier output, or as an extension output to "daisy-chain" another Auro passive loudspeaker.
10. **¼" Input** – ¼" connector for connecting a power amplifier output, or as an extension output to "daisy-chain" another Auro passive loudspeaker.

Choosing the Correct Cables

Auro series speaker connections are made via the rear panel ¼" and/or Speakon® connectors. It is recommeneded that you use standard unshielded speaker wires (12-14 gauge), available at your local pro audio or music store, with either ¼" phone or Speakon connectors.

If your amplifier uses binding posts, you can use speaker cables with banana plugs, but be sure to pay attention to the plus and minus polarity when making the connections. Make sure that the "+" terminal of the speaker, or banana connector, is connected to the "+" terminal of the power amplifier, and that the "-" terminal of the speaker, or banana connector, is connected to the "-" terminal of the power amplifier. For a detailed wiring diagram, please see page 9 of this manual.

Here's a tip: It's fairly easy to identify a monitor that is out of phase just by listening, especially on a pop record. Listen for the parts of the music that you would expect to be in the center of the mix, like kick drum and vocals. If you do not hear them directly in the center (for instance they sound like they are two signals panned hard right and left) then you are more than likely listening to an out-of-phase monitor system. It is important that your PA system is connected in phase, otherwise you will not have the proper low-end response and stereo image.

Impedance

Before you hook up your speaker cabinet, it is useful to learn a little about impedance. Impedance is the electronic load that the speaker puts on the power amplifier, and is measured in Ohms.

Here is the tricky, yet simple rule of impedance: When two speakers, of equal impedance, are wired in "Parallel", the total impedance is cut in half. When two speakers are wired in "Series," the total impedance is the sum of the speakers' individual impedance. The Auro D12 and D15 are each 8 Ohms. So, when two Auro cabinets are connected in parallel, the total impedance is 4 Ohms. The impedance of your speaker also has an effect on the amplifier. In general, the lower the impedance, the more power your amplifier will deliver.

IMPORTANT NOTE: There is minimum safe impedance for running power amplifiers. Be sure to check the manufacturer's recommended impedance for your amplifier to avoid any damage, which may void your warranty.

Connecting Two Auro Cabinets

The Auro loudspeakers provide parallel jacks that can be used as extension outputs for connecting additional speaker cabinets. Be sure to read the earlier section on impedance to insure a proper connection with your amplifier. To link two Auros, connect your amplifier output to one of the Input jacks of the first Auro. Then connect a cable from the second connector to an Input of the second Auro.

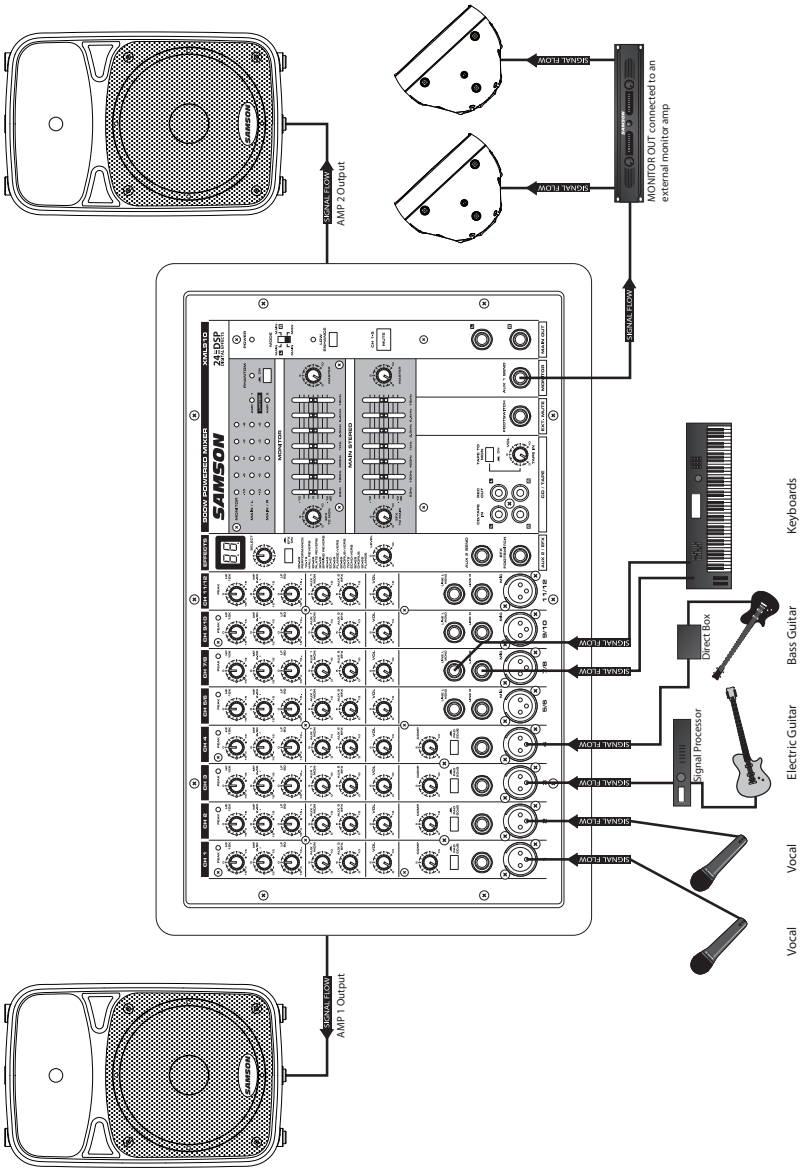
Power the Auro D12/D15

When selecting a power amplifier for your Auro cabinet, it is important to understand the type of program material that the speaker will be handling. If the material has frequent transient peaks, choose an amplifier that has a power rating not more than twice the RMS rating of othe Auro cabinet. This will offer extra headroom and deliver a clear signal to your speaker cabinet. Using a power amplifier with a low power rating will cause a clipped output signal, which may damage the speaker. Be sure to consult the users manual of the amplifier to ensure it has the correct power output for your speakers.

Microphone Positioning

Reducing Feedback

Feedback is the annoying howling and squealing that is heard when a microphone gets too close to a speaker, and the volume is high. Feedback results when the microphone picks up the amplified signal from the speaker, amplifies it through the speaker again, and then picks it up again, and so on. In general, it is recommended that any live mic (a mic that's on) be positioned behind the speaker enclosures. This will give you the best level from your system before feedback.



This example shows a typical PA system using a powered mixer with a pair of Auro speakers for the main left and right mix. A separate signal from the mixer's AUX/MONITOR bus is sent to an external power amplifier and two additional Auros placed in the tilt-back (wedge) position used as floor monitors.

Positioning the Auro D12/D15

Speaker Placement

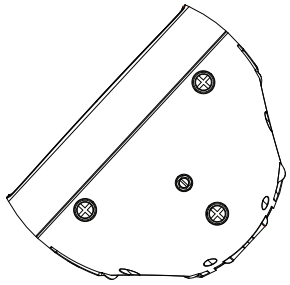
Whenever possible, it is a good idea to raise the speakers above the heads of the listening audience. The Auro enclosures feature standard 1 3/8" pole mount receptacles with locking bolts, which are compatible with speaker stands from a variety of manufacturers. In a smaller setting (such as a school cafeteria, library, or a mall kiosk) you can instead use the Auro loudspeakers in the tilt back monitor positions, which will improve the projection of the speakers, and may eliminate the need for speaker stands.

Note: When using a speaker pole mount, be sure the pole is capable of supporting the weight of the Auro loudspeaker.

Note: Always have another person assist when mounting the Auro speaker onto a speaker stand, or when adjusting the stand while the speaker is mounted.

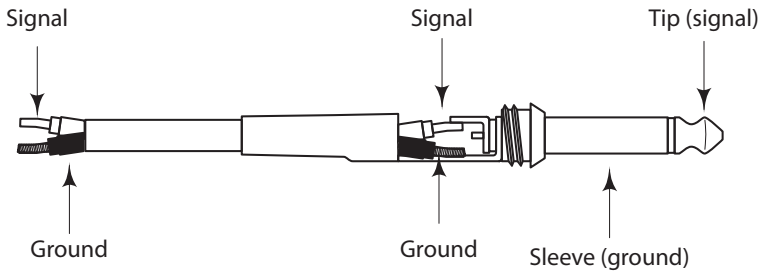
Using the Auro D12/D15 as a Floor Monitor

The Auro D12/D15 is an ideal solution for stage monitoring. Thanks to its unique design, two wedge monitor positions are possible. When placed on its side with the high frequency horn facing to the left of the enclosure, the Auro is tilted at a 30° angle, optimizing performance when used on a large stage. When placed on its side with the high frequency horn facing to the right of the enclosure, the Auro is tilted at a 45° angle, optimizing performance when used on a smaller stage.

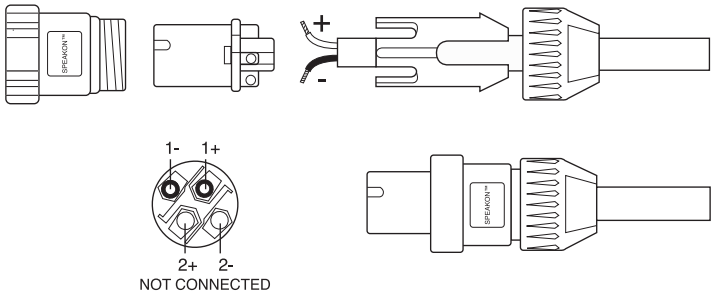


The Auro loudspeaker provides both Speakon® and 1/4" phone connectors for easy interface with industry standard cables. You can use a variety of standard speaker cables that are available "off the shelf" at you local pro-audio or musical instrument retailer. Be sure the cables use stranded speaker wire; gauge 12–14 is recommended. If you are making you own cables, use the diagrams below to ensure a proper hook up.

Unbalanced 1/4" Connector



Speakon® Wiring Guide

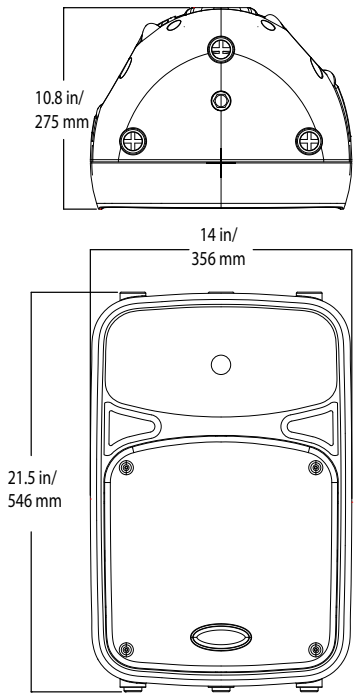


Specifications

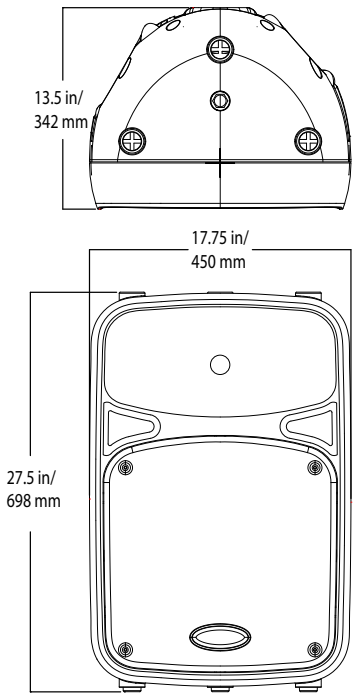
		D12	D15
Output Power			
RMS Power		400 W @ 8 ohms	
Peak Power		800 W @ 8 ohms	
Nominal Impedance		8 ohms	
Transducers			
Low Frequency		12" bass transducer, 2.5" voice coil	15" bass transducer, 3" voice coil
High Frequency		1.34" (34 mm) compression driver	
Acoustic Performance			
Frequency Response (-10 dB)		60 Hz - 20 kHz	50 Hz - 20 kHz
Sensitivity (1W @ 1m)		94 dB	95 dB
Maximum Sound Pressure Level		118 dB SPL @ 1 m	120 dB SPL @ 1 m
Horizontal Coverage Angle		90°	
Vertical Coverage Angle		60°	
Crossover			
Crossover Type		12 dB/oct Linkwitz-Riley	
Crossover Frequency		3.5 kHz	
Inputs			
Inputs		Speakon® & ¼" Parallel Inputs	
Dimensions and Weight			
Dimensions	Length	14"/356 mm	17.75"/450 mm
	Width	10.8"/275 mm	13.5"/342 mm
	Height	21.5"/546 mm	27.5"/698 mm
Weight	lbs	28.5 lbs/12.95 kgs	39 lbs/17.7 kgs
Mounting			
Mounting Method		Integral 1 3/8" Pole Mount Receptacle	
Fly Point		1	

Specifications are subject to change without notice.

D12


10.8 in/
275 mm
14 in/
356 mm
21.5 in/
546 mm

D15


13.5 in/
342 mm
17.75 in/
450 mm
27.5 in/
698 mm

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